

# CONSTRUCTION PERMIT SUMMARY REPORT

Company Name: Tennessee Department of General Services File Number: 90-0420 EPS Initials: AY

Permit Number(s): 970442P Source Number(s): 01

Application Received (date): July 6, 2015 Application Complete (date): July 6, 2015

Air Quality Analysis Performed? Yes ☐ No ☒

This is a new internal combustion diesel-fired engine (240 hp) used for an emergency generator. This emergency engine is subject to NSPS, **Subpart III**, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Additionally, the engine will meet the engine MACT (40 CFR 63 Subpart ZZZZ) by meeting the NSPS requirements in subpart III. This is an area source of hazardous air pollutants, and is not a major source for New Source Review (PSD). The expected emissions from this source are products of combustion of fuel oil. Pollution control equipment is not proposed for this source. This source is located in an area that is attainment for all pollutants.

The engine is stationary, compression ignition, greater than 50 HP, less than 3,000 HP, less than 10 L displacement per cylinder, model year 2007 or later, and designated use for emergency purposes; therefore, the permit for this engine is eligible for use of the standard template.

## Rules Analysis

Title V ☐ Cond. Major ☐ Minor ☒ Source category listed in 1200-03-09-.01(4)(b)1.(i)? Yes ☐ No ☒

Reason for PSD:	New source above ____ TPY	<input type="checkbox"/>	Sig. increase in ____ emissions	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NSPS:	40 CFR Part 60, Subpart <u>4I</u>	<input checked="" type="checkbox"/>	State Rule 1200-03-16-. ____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NESHAP:	40 CFR Part 61, Subpart ____	<input type="checkbox"/>	State Rule 1200-03-11-. ____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NESHAP:	40 CFR Part 63, Subpart <u>4Z</u>	<input checked="" type="checkbox"/>	State Rule 1200-03-31-. ____	<input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

### Other Applicable State Rules

TSP Emissions:	1200-03- <u>06</u> -. <u>02(2)</u>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/>	NO <sub>x</sub> Emissions:	1200-03- <u>07</u> -. <u>07(2)</u>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/>
SO <sub>2</sub> Emissions:	1200-03- <u>14</u> -. <u>03(5)</u>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/>	____ Emissions:	1200-03-____ -. ____	<input type="checkbox"/> N/A <input type="checkbox"/>
CO Emissions:	1200-03- <u>07</u> -. <u>07(2)</u>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/>	____ Emissions:	1200-03-____ -. ____	<input type="checkbox"/> N/A <input type="checkbox"/>
VOC Emissions:	1200-03- <u>07</u> -. <u>07(2)</u>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/>	____ Emissions:	1200-03-____ -. ____	<input type="checkbox"/> N/A <input type="checkbox"/>

Visible Emissions from	<u>source</u>	not to exceed	<u>20</u> % opacity per Method	<u>9</u> (Rule 1200-03- <u>05</u> -. <u>03(6)</u> )
Visible Emissions from	____	not to exceed	____ % opacity per Method	____ (Rule 1200-03-____ -. ____)
Visible Emissions from	____	not to exceed	____ % opacity per Method	____ (Rule 1200-03-____ -. ____)

Comments: \_\_\_\_\_

**Emission Summary****Permit Number:** 970442P**Source Status:** New ☒ Modification ☐ Expansion ☐ Relocation ☐**Permit Status:** New ☒ Renewal ☐PSD ☐ NSPS ☒ NESHAPs ☒ **Previous Permit Number:** Construction \_\_\_\_\_ Operating \_\_\_\_\_

	Pounds/Hour			Tons/Year				Date of Data	*	Applicable Standard
	Actual	Potential	Allowable**	Actual	Potential	Allowable	Net Change			
PM	≤ allowable		0.08	≤ allowable	0.02	0.02			1	40 CFR §60.4205(b)
SO <sub>2</sub>		Neg.	--		Neg.	--			2	1200-03-14-.03(5)
CO	≤ allowable		1.38	≤ allowable	0.35	0.35			1	40 CFR §60.4205(b)
VOC***	≤ allowable		Included with NO <sub>x</sub>	≤ allowable		Included with NO <sub>x</sub>			1	40 CFR §60.4205(b)
NO <sub>x</sub> ***	≤ allowable		1.58	≤ allowable	0.39	0.39			1	40 CFR §60.4205(b)
HAPs					Neg.	--			3	

The SO<sub>2</sub> emissions were calculated using 15 ppm sulfur content of the fuel (NSPS requirement), assuming all available sulfur is converted to SO<sub>2</sub>, and shown to be negligible.

HAPs emissions were calculated from AP-42, Table 3.3-2, and shown to be negligible.

CO<sub>2</sub>e emissions were calculated using the emission factors in 40 CFR 98, Tables C-1 and C-2.

The ton per year emissions were calculated at 500 hours of operation / year based on the guidance found in the Seitz memo regarding the PTE determination for emergency engines. Allowable emissions for fee purposes are equal to the potential emissions.

\* Source of data codes are found on the back of the APC 100.

\*\* The allowable emission limits from 40 CFR part 60 Subpart IIII are in units of grams/kilowatt-hour. Each standard was reduced to lb/hr using the engine power output, in kilowatts, and a conversion factor of 453.592 gram per pound.

\*\*\* The applicable standard in §60.4205(b) & §89.112, Table 1 is in terms of NO<sub>x</sub> + NMHC; therefore, the allowable VOC emissions are accounted for in NO<sub>x</sub>

PERMITTING ENGINEER: AYDATE: September 28, 2015